

Dark circles and facial rejuvenation

A 45-year-old socialite lady comes for cosmetic consultation and wants a remedy for dark circles and facial ageing. How do you manage this patient?

Issues of dark circles and facial ageing should be addressed separately.

Facial ageing should be considered in the context of:

1. bony and soft tissue volume loss
2. tissue descent
3. laxity
4. skin ageing and health.
 - Forty-five years should be considered young and therefore the principle should be minimally invasive.
 - Soft tissue volume comprises of the mimetic muscles and fat and so treatment will be directed at areas of fat pads including brow temple region, lateral canthus, lid-cheek junction, tear trough and cheek. This can be addressed usually with hyaluronic acid fillers such as Restylane but other non-surgical fillers such as Sculptra are also a popular choice for temples and cheeks.
 - Autogenous fat transfer can also be considered if more extensive areas need treating.
 - Autogenous fat transfer will also improve the quality of a patient's skin.
 - Very helpful to use patient's old photographs as a guide to addressing the changes that have occurred and areas that would benefit from treatment.
 - Regarding tissue descent, at 45, actual descent will be minimal and the majority of what is perceived as descent will be volume-related. Upper lid blepharoplasty and possibly mild ptosis correction, however, are often useful options.
 - Unless a patient has lower eyelid fat prolapse from childhood, lower lid blepharoplasty would represent the tip of the iceberg in terms of what options should be considered.
 - Patients at this age usually complain of shadowing in the lower eyelid tear trough and lid-cheek junction

and restoring volume in this area with hyaluronic acid is very effective and can last many years.

- Addressing skin ageing should include:
 - diet
 - hydration
 - stopping smoking
 - minimising salt intake
 - avoiding sun exposure or at least using sun protection and skin moisturisers
 - certain medication such as calcium channel blockers can predispose to festoons.
- Important to exclude ocular conditions that can contribute to dark circles and periorbital ageing. These include:
 - evaporative dry eye
 - chronic allergic conjunctivitis or blepharoconjunctivitis
 - contact dermatitis can often result in dark skin particularly in Asians, and can be related to products used at distant sites such as scalp or hands. Patch testing is very helpful to identify allergens.
- Treating pigmentary skin-related dark circles can be challenging. Simple options include tretinoin creams which can help fine wrinkles, dark spots or rough skin, particularly for acne. Beyond this I would seek dermatological advice.
- Pigmanorm cream and perhaps most effective is a combination of low fluence Q-switched Nd:YAG 1064nm laser combined with glycolic acid peels. However, this needs weekly treatments for up to 16 weeks with medium term benefit.

Dark circles are a common problem, giving the face a fatigued appearance and are difficult to conceal with cosmetics. Patients often want a quick fix with a single procedure and have a tight budget. Management of unrealistic expectations is the key.

Factors leading to the development of dark circles include:

- age-related thin and lax periocular skin
- hyper pigmented periocular skin (Asian and African ethnicity, exposure to UV light)
- visible blood product pigmentation from leaking damaged capillaries
- puffy eyelids due to ageing or venous congestion (thyroid and renal dysfunction, seasonal allergies)
- under eye / cheek volume loss and fat descent (tear trough deformity)
- lifestyle factors aiding dehydration (e.g. late nights, heavy alcohol and caffeine consumption) and loss of collagen (smoking and poor skin care).

Clinical pearls

Consult the patient in a room illuminated with natural light. The patient sits upright viewing face in a large handheld mirror, whilst pointing out areas of concern. Use a camera to illustrate and record findings.

Key parameters

Visual acuity

Tip: highlight small risk of irreversible sight loss with ALL facial fillers.

Exophthalmometry

Involutorial enophthalmos results in a dark shadow over the lower eyelid.

Tip: educate about slow progression, to manage expectations.

Skin

Quality of skin (thick vs. thin, smooth vs. wrinkled) and skin pigmentation (colour of the overlying skin) is crucial, as a filler may improve shadowing but will not improve dark pigmentation or correct laxity. A purplish or bluish tint in the dark circles is from leaking capillaries. If you pull the skin sideways and the darkness turns blotchy, the problem is caused by excess pigment in the area.

Tip: ask about skin care regime and introduce advanced concepts of skin care.

TAKE HOME MESSAGE

Take home message: Managing the expectation of the patient and a thorough assessment are key to patient satisfaction.

Mr Raman Malhotra,
MBChB, FRCOphth,
Consultant Ophthalmic Surgeon,
Queen Victoria Hospital,
East Grinstead, UK.

Midface and orbital sub rim

Midface ptosis helps to bare the tear trough and hypoplasia of the infraorbital malar complex can cause an under eye hollow.

Tip: define extent of the hollow to estimate amount of required filler, which is important to quote on price.

Infraorbital fat

Protruding fat creates an illusion of a deeper tear trough deformity due to shadowing.

Tip: under-eye circles caused by tear trough deformity can be shown to the patient, along with their disappearance, when patient is photographed using flash photography.

Management

I encourage patients to address contributory lifestyle factors (smoking, sleeping with make-up on). I recommend a combination of treatment options aimed at increasing collagen production,

decreasing pigmentation and improving overall skin quality.

In addition I prefer using hyaluronic acid fillers to augment the tear trough, cheek area and work closely with expert dermatological colleagues for intense pulsed light (IPL) and laser resurfacing.

Skin care regimes

Moisturisers along with vitamin C (SkinCeuticals, PCA), prescription retinoic acid (SkinCeuticals, Obagi) and use of a sunscreen (SkinCeuticals, Anthelios).

Skin hyperpigmentation

Refer to dermatologist for IPL treatments.

Fine lines, dynamic wrinkles and hypertrophic orbicularis muscle

Botox.

Moderate skin laxity and static wrinkles

Radiofrequency skin tightening, chemical peel or refer to dermatologist for skin resurfacing.

Midface and infraorbital hollows

Localised augmentation with hyaluronic acid (HA) fillers.

Large eye bags and severe elastosis

Lower lid blepharoplasty.

Mrs Sabrina Shah Desai,

MS FRCS,

Consultant Ophthalmic Surgeon,

BHR University Hospitals,

London, UK.

SECTION EDITOR

Mr Yajati K Ghosh,
MBBS, FRCSEd Ophthal,
Consultant Ophthalmic
Surgeon,
Birmingham & Midland
Eye Centre, UK.
E: [yajati_ghosh
@hotmail.com](mailto:yajati_ghosh@hotmail.com)